

REMARKS

Claims 1 and 4-9 stand rejected under 35 U.S.C. §102(a or b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Iwata et al. (U.S. Patent No. 6,545,955). In response, Applicants have amended claim 1, and respectfully traverse. Applicants respectfully traverse because the cited reference does not disclose or suggest, among other things, first and second reproducing layers having perpendicular magnetization and being formed as an integral layer.

The Iwata et al. reference discloses a magneto-optical storage medium that includes a GdFeCo reproduction layer 1, a first in-plane magnetic layer 2, a supplemental reproduction layer 3 formed of GdFeCo, and a second in-plane magnetic layer 4. A storage layer 7 which can be formed of TbFeCo is also disclosed. However, the Iwata et al. reference does not disclose or suggest, among other things, a first reproducing layer and a second reproducing layer that are formed as an integral layer. Rather, the first in-plane magnetic layer 2 separates the reproduction layer 1 and the supplemental reproduction layer 3. In addition, the Iwata et al. reference illustrates in FIG. 2 that the reproduction layer 1 and the supplemental reproduction layer 3 have in-plane magnetizations at room temperature, and do not have perpendicular magnetization.

In contrast, claim 1 is amended to call for the first and second reproducing layers having perpendicular magnetization and being formed as an integral layer. Since the Iwata et al. reference does not disclose or suggest these features, withdrawal of the §§102 and 103 rejections of claims 1 and 4-9 are respectfully requested.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata et al., and further in view of Matsumoto et al. (U.S. Patent No. 6,020,079). Applicants believe the rejection refers to claim 3. Nevertheless, since claims 2 and 3 depend upon claim 1, they necessarily include all of the features of their associated independent claim plus additional features. Thus, Applicants submit that the §103 rejection of claims 2 or 3 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claim 1, and also because the Matsumoto et al. reference does not overcome the deficiencies of the Iwata et al. reference. Applicants respectfully request that the §103 rejection of claims 2 or 3 also be withdrawn.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata et al., and further in view of Tamanoi et al. (U.S. Patent No. 6,356,516). Applicants believe the rejection refers to claim 2. Nevertheless, since claims 2 and 3 depend upon claim 1, they necessarily include all of the features of their associated independent claim plus additional features. Thus, Applicants submit that the §103 rejection of claims 2 or 3 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claim 1, and also because the Tamanoi et al. reference does not overcome the deficiencies of the Iwata et al. reference. Applicants respectfully request that the §103 rejection of claims 2 or 3 also be withdrawn.

Claims 1 and 4-9 stand rejected under 35 U.S.C. 102(a or b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nishimura et al. (U.S. Patent No. 6,125,083). In response, Applicants respectfully traverse the rejection

because the Nishimura et al. reference does not disclose or suggest a Gd composition between a first reproducing layer and a second reproducing layer that is in a range of 0.5 to 3.0 at%.

The Nishimura et al. reference discloses a magneto-optical recording medium that includes a reproduction layer 11 and an intermediate layer 12. It appears, however, that in Examples 33-36 and in Table 8 of the Nishimura et al. reference, the Gd composition between the reproduction layer and the intermediate layer is not between the range of 0.5 to 3.0 at%. Rather, the smallest difference in Gd composition between the reproduction layer and the intermediate layer in Table 8 is 7 at%, where x is 32 and p is 25.

In contrast, claim 1 is amended to call for a Gd composition between the first reproducing layer and the second reproducing layer as being in the range of 0.5 to 3.0 at%. Since Applicants believe that the cited reference does not disclose or suggest the first and second reproducing layers having the provided Gd composition, withdrawal of the §§102(a or b) or 103 rejections to claims 1 and 4-9 is respectfully requested.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura et al., and further in view of Matsumoto et al. Applicants believe the rejection refers to claim 3. Nevertheless, since claims 2 and 3 depend upon claim 1, they necessarily include all of the features of their associated independent claim plus additional features. Thus, Applicants submit that the §103 rejection of claims 2 or 3 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claim 1, and also because the Matsumoto et al. reference does not overcome the deficiencies of the

Nishimura et al. reference. Applicants respectfully request that the §103 rejection of claims 2 or 3 also be withdrawn.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura et al., and further in view of Tamanoi et al. Applicants believe the rejection refers to claim 2. Nevertheless, since claims 2 and 3 depend upon claim 1, they necessarily include all of the features of their associated independent claim plus additional features. Thus, Applicants submit that the §103 rejection of claims 2 or 3 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claim 1, and also because the Matsumoto et al. reference does not overcome the deficiencies of the Nishimura et al. reference. Applicants respectfully request that the §103 rejection of claims 2 or 3 also be withdrawn.

Claims 1 and 4-9 stand rejected under 35 U.S.C. 103(a) as being obvious over Hirokane et al. (U.S. Patent No. 6,534,162). In response, Applicants respectfully traverse the rejection because the cited reference does not disclose or suggest, among other things, first and second reproducing layers that have perpendicular magnetization and are formed as an integral layer, and further have a Gd composition between the first reproducing layer and the second reproducing layer in the range of 0.5 to 3.0 at%.

The Hirokane et al. reference disclose a magneto-optical recording medium that includes a reproducing magnetic layer 1 having a composition of GdTbFeCo and a recording magnetic layer 3, with an in-plane magnetic layer 5 and a non-magnetic intermediate layer 2

therebetween. However, as illustrated in FIG. 5, the magnetic layer 5 has in-plane magnetization.

In contrast, the present invention calls for the first and second reproducing layers to have perpendicular magnetization. For at least this reason, withdrawal of the rejection is respectfully requested. In addition, the Examiner considers the composition of layers 1 and 5 to be only slightly different. Applicants respectfully disagree with the Examiner's position because the reproducing magnetic layer 1 has a Gd composition of approximately 32% whereas the in-plane magnetic layer 5 has a Gd composition of approximately 10%. In FIG. 14, the Gd composition of the reproducing magnetic layer 1 is 3%, and the first in-plane magnetic layer 6 has a Gd composition of 10%. The second in-plane magnetic layer 7 has a Gd composition of 48%. Accordingly, Applicants do not consider layers 1, 6, or 7 to have similar compositions. Accordingly, withdrawal of the §103 rejection to claims 1 and 4-9 is respectfully requested.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirokane et al., and further in view of Matsumoto et al. Applicants believe the rejection refers to claim 3. Nevertheless, since claims 2 and 3 depend upon claim 1, they necessarily include all of the features of their associated independent claim plus additional features. Thus, Applicants submit that the §103 rejection of claims 2 or 3 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claim 1, and also because the Matsumoto et al. reference does not overcome the deficiencies of the

Hirokane et al. reference. Applicants respectfully request that the §103 rejection of claims 2 or 3 also be withdrawn.

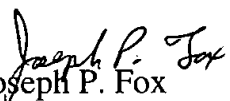
Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirokane et al., and further in view of Tamanoi et al. Applicants believe the rejection refers to claim 2. Nevertheless, since claims 2 and 3 depend upon claim 1, they necessarily include all of the features of their associated independent claim plus additional features. Thus, Applicants submit that the §103 rejection of claims 2 or 3 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claim 1, and also because the Matsumoto et al. reference does not overcome the deficiencies of the Hirokane et al. reference. Applicants respectfully request that the §103 rejection of claims 2 or 3 also be withdrawn.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner should call Applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

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